

GarageBand '08 is the audio application included with iLife '08. With GarageBand, you can record vocals using a microphone, or your own music using a keyboard or any instrument that can be connected to the computer. GarageBand also includes an eclectic collection of music loops for use in your projects, and you can import a number of file types as well. With the Magic GarageBand feature, you don't have to start every project from scratch. You can use a virtual band to preview songs from a variety of genres and use them as the foundation for your project. GarageBand '08 also introduces multi-take recording so you don't have to get your song right the first time.

### Hardware Setup

You can connect a microphone directly into your computer's audio line in port or you can use a USB microphone. Once you connect the microphone to the audio line in or USB port, you may have to change your audio preferences to make the microphone available to GarageBand:

1. Select Apple > Preferences to open up the System Preferences window.
2. Click on Audio and select the Input tab.
3. Select the microphone from the list at the top of the window.

To enable the microphone in GarageBand:

1. Select GarageBand > Preferences.
2. Click on the Audio/Midi button at the top of the window.
3. Select the microphone using the Audio Input pulldown menu.

Most musical instruments will first connect to an audio interface that will then connect to your computer using either a USB or Firewire cable. The steps for setting up a musical instrument using a USB or Firewire audio interface are the same as for setting up a microphone.

### Magic GarageBand

GarageBand '08 gives you a head start on any project by allowing you to use a virtual band to create a composition with all the instruments you need.

To create a project using Magic GarageBand:

1. Click on the Magic GarageBand button in the GarageBand splash screen.



2. Choose a genre by clicking on one of the thumbnails.
3. Choose whether you want to hear a snippet or the entire song using the rocker button next to the play button.
4. Click on the Play button to start the preview. Use the slider to the right of the play button to adjust the volume of the preview.
5. Once you find a genre you like, click on the Audition button to open the virtual band window. Click on the Change Genre button to go back and select a different genre.
6. To change an instrument in your virtual band, click on the instrument to spotlight it and choose a different instrument from the list that appears below the virtual band. You can take out an instrument by choosing None from the list.
7. Click on Create Project to open the project for editing in GarageBand.

### Creating a New Project

To create a new music project from scratch:

1. Select File > New or click on the New Music Project button on the GarageBand splash screen.
2. Enter a name for your project file.
3. Choose a save location using the pulldown menu. If you do not see the location you need, click on the down arrow next to the Save As field to display more locations.
4. Set the tempo, time signature and key.
5. Click on Create.
6. GarageBand will display an on-screen keyboard you can use to record your audio if you do not have a physical keyboard.



If you do not need the on-screen keyboard, close it by clicking on the red button in the upper left corner of the keyboard window.

7. As you work on your project, make sure to save frequently by selecting File > Save.

### Track Controls

The track controls determine how a track behaves.



From left to right, these controls are:

- **Enable recording:** this button must be turned on before you can record to the track.
- **Mute:** turns off playback on the track.
- **Solo:** allows you to mute all other tracks and play back the track by itself.
- **Lock:** disables editing on the track so you don't make unwanted changes once you have all your settings the way you need them.
- **View/Hide Automation:** displays volume, pan and automation (effects) curves which can be used to adjust these settings over time.

### Working with Tracks

A GarageBand project is created by adding a track for each instrument you want to use in your recording. GarageBand supports two types of instruments:

- **Real Instruments:** voice and other sound that can be recorded with a microphone or any instrument you can connect to your computer with an audio interface, with the exception of a MIDI keyboard. Includes GarageBand loops as well.
- **Software Instruments:** sound created by GarageBand and playable on any USB or MIDI keyboard.

The Track menu allows you to perform the following track-related actions:

#### Add a Track:

1. Select Track > New Track.
2. Select Real Instrument (if you're using a microphone or audio interface) or Software Instrument (if you want to use computer generated instruments created within GarageBand) and click on Create.
3. GarageBand will add a track with the default instrument and the Track Info pane will display to the right. To change the instrument, choose an instrument category on the left

side of the pane, then select an instrument on the right side.

4. Click on the arrow next to Details if you want to set instrument options. You can add effects and more in this area.
5. If you want to use the same instrument settings in the future, click on Save Instrument.

#### Duplicate a Track:

To create a new track with the same settings as an existing track, select Track > Duplicate Track or hold down the Command key and press the letter D.

#### Create a Basic Track:

Select Track > New Basic Track to create a track that does not have an instrument assigned to it. You can assign an instrument of your choice by clicking on the Track Info button and selecting it from one of the categories.



#### Delete a Track:

Select the track (the icon for the instrument will have a glow around it) and choose Track > Delete Track or hold down the Command key while you press Delete on your keyboard.

### Recording

Once you have created a new track, you're ready to record:

1. Make sure the track is enabled for recording by clicking on the Enable Recording button in the track controls.
2. Click the Record button in the controls area that appears below the timeline or press the letter R on your keyboard.
3. When you're done recording, click the Record button again, or press the letter R on your keyboard.
4. To preview your recording, move the playhead to the beginning by using the button in the controls area or press the letter Z on your keyboard.
5. Press the Space Bar on your keyboard to begin playing your recording. Press the Space Bar to stop the playhead.



### Working with Regions

Each time you press the Record button, GarageBand creates a new region in the track you have selected. The color of the region will indicate what type of region it is:

- Purple: real instrument you record

- Blue: real instrument created from a loop
- Orange: imported audio file
- Green: software instrument

You can edit these regions in a number of ways:

- *Move*: Click on it and drag it to another location in the timeline (either on the same track or on different track.).
- *Trim*: Place your pointer over the lower half of one of the edges until it turns into a bar with an arrow on it. Drag in to trim the region. On software instrument regions, drag out to add silence at the beginning or end of the region.
- *Loop*: Place your pointer over the upper part of the right edge until it turns into a bar with a curved arrow on it, then drag to the right.
- *Duplicate*: Hold down the Option key as you drag the region and it will be duplicated.
- *Delete*: Select the region and press the Delete key on your keyboard.
- *Split*: Place the playhead where you want to split the region and select Edit > Split.

GarageBand '08 supports cycle regions to allow you to do multiple takes of a recording. To Create a cycle region:

1. Click on the Cycle button in the controls area.
2. The cycle region will appear as a yellow area in the timeline. Move the region to where you want to start recording. To resize the cycle region, drag in on the edges of the cycle region.
3. Place your cursor at the beginning of the cycle region and record your first take. Press the Play button when you're finished recording. Repeat to record additional takes.
4. To preview each take, click on the circle with the number in the upper left corner of the region.
5. To keep just one take, click on the circle with the number of takes, choose the take you want to keep (it should have a check mark next to its name), and then choose Delete Unused Takes from the same menu.

Another new feature in GarageBand '08 is the ability to arrange regions into sections such as intro, verse, and chorus using the arrange track in the GarageBand timeline:

1. Choose Track > View Arrange Track.
2. Click on the plus button to create a new arrange region. To rename the arrange region, click on its name, wait a few seconds, then type the name you want to assign to it.

3. To resize the arrange region, drag in from the edges. To move it, drag it to another location in the timeline. To copy it, hold down the option key as you drag to another point in the timeline. When you move or copy an arrange region, the music in all of the tracks in that region are moved or copied.

### The Track Editor

The Track Editor allows you to edit the contents of a region. The display on the Track Editor will depend on what type of region you have selected. For real instrument regions, the Track Editor will display a waveform of the recording.

To remove a section of the waveform in the Track Editor:

1. Select the region you want to edit.
2. Click on the Track Editor button.
3. When the Track Editor opens, position your pointer somewhere in the lower part of the waveform (until it turns into crosshairs) and make a selection.
4. Select Edit > Cut or hold down the Command key and press X on your keyboard.



### Notation View

When you open up the Track Editor with a software instrument region selected, you can edit the individual notes in that region in notation view:

1. Select the region you want to edit and click on the Track Editor button.
2. Switch to notation view by clicking on the button with the musical note on it.
3. To move a note, select it and drag it to another spot in the notation area. You can drag the note up and down to change its pitch.
4. To add a note, first click on the Note Value button and choose the Note value, then hold down the Command key and click in the notation area where you want to add the note. To copy a note, hold down the Option key as you drag the original note to another spot in the notation area.
5. To delete a note, click on it to select it and press Delete on your keyboard.
6. To print the notation area, choose File > Print.



### Adding Loops

GarageBand includes loops of prerecorded music that can be used to add drum beats and other repeating elements.

To add a loop to a project:

1. Click on the Loop Browser button.
2. Select a category by clicking on one of the buttons. 
3. The loops in that category will be listed to the right. Double-click on a loop to preview it.
4. When you find one you like, drag it into the main window. GarageBand will create a new track with a loop region in it. To extend the loop, place your pointer over the upper part of the right edge until it turns into a bar with a curved arrow on it, then drag to the right.

### Importing Music

GarageBand supports the MP3, MIDI, WAV, and ACC file formats. There are two ways to import an audio file: using the Media Browser or from a Finder window.

To import a file using the Media Browser:

1. Click on the Media Browser button. 
2. Select the Audio tab at the top of the Media Browser.
3. Click on iTunes and select a file from the list. Click on the Play button to hear a preview.
4. Drag the file into the gray area in the GarageBand window. GarageBand will create a new track when you release the mouse.

To import a file using the Finder:

1. Resize the GarageBand window so you can see the file you want to import.
2. Drag the file from the Finder window until the pointer has a plus sign on it.
3. Release the mouse to create a new track with the audio from your file.

### Adjusting Volume and Pan

To adjust the volume level and pan on any track:

1. Display the Track Mixer by selecting Track > Show Track Mixer. The volume indicators will indicate your volume level as two bouncing green bars (only one bar if you're recording in mono). These two bars will hit a red point if your volume is too high.



2. Use the slider below the indicators in the Track Mixer to adjust the volume level. The pan wheel in the Track Mixer allows to place instruments in the stereo field. Drag the wheel to either side to have instruments play out of either the left or right channel.

3. To adjust the volume or pan dynamically over time, display the volume or pan curve by clicking on the down arrow in the track controls, then choosing Track Volume or Track Pan using the pulldown menu.



4. Click on the curve to add points you can use to change the shape of the curve. These points can be used to create fades and other effects.

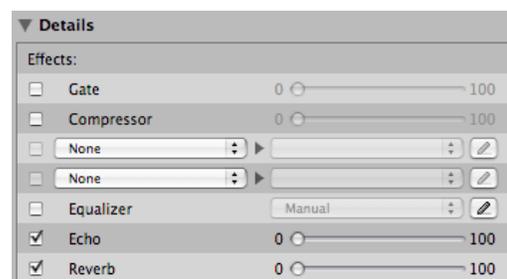


When you're finished editing a track, you can lock it to prevent it from being accidentally changed. To lock a track, select the lock icon in the track controls area. 

Each GarageBand project includes a Master Track which determines the volume level for the entire project. To adjust the volume of the Master Track, first choose Track > Show Master Track, then make sure Master Volume is selected in the pulldown menu on the left side of the track. You can then drag the volume curve up to raise the overall volume or set points in the volume curve to change the volume over time.

### Effects

GarageBand includes studio-quality effects you can use to enhance your audio. The effects are available in the Details area of the Track Info pane.



To add an effect to a track:

1. Select the track, then click the Track Info button.
2. Click on Details to show the track's effects settings.
3. Click the checkbox next to an effect to turn the effect on or off.
4. To adjust the gate, echo, and reverb effects use the sliders to make adjustments until you get the sound you want.
5. Other effects can be added by changing the value of one of the pulldown menus on the left side of the pane from None to the effect you want to use, then choosing an option from the Preset pulldown menu. To edit the parameters of an effect, click on the Edit button  with the pencil icon.

The Visual EQ effect allows you to modify the different frequencies in a recording. To use the Visual EQ:

1. Click the box next to Visual EQ in the Details area of the Track Info pane.
2. Choose one of the presets using the Preset pulldown menu.
3. To bring up the Visual EQ window, click on the edit button with the pencil icon to the right of the pulldown menu. This will bring up the Visual EQ window.
4. Check the box next to Analyzer to see a frequency curve (showing which frequencies are louder or softer) as you play your project. Make sure to turn off the Analyzer when you don't need it, as it takes up a lot of CPU resources when it is on.
5. To adjust a band (bass, low mid, high mid, and treble) click on the area for that band and drag up or down to make your adjustment. You can drag to the left and right to change the pitch.

With GarageBand '08 some effects can be applied dynamically over time using an automation curve similar to the volume and pan curves. To use automation:

1. Click on the down arrow in the track controls.
2. Choose Automation from the pulldown menu below the track controls.
3. Click on the triangle next to Visual EQ or Echo and Reverb to see the effects in each category, then check the box next to the effects you want to add.
4. To modify an effect, choose it using the pulldown menu below the track controls, then

click on the automation curve that is displayed below the track's regions to set points you can use to change the shape of the curve.

## Exporting

To share your audio, you have to export it into a format that can be played outside GarageBand.

To export a recording:

1. Select Share > Export Song to Disk.
2. Enter a name for your exported song and choose a save location.
3. Click on Save.

GarageBand will save your song as an AAC file you can play on iTunes and other programs that support that format.

If you select Share > Send Song to iTunes, your song will be exported as an AIFF file and iTunes will open and automatically play it. If you plan to share your song with others, you should export it to either AAC or MP3, as these formats are more commonly supported.

To convert your song to AAC or MP3:

1. Choose the format used to convert the song file. Select iTunes > Preferences > Advanced.
2. In the Importing tab, choose MP3 Encoder or AAC Encoder from the Import Using pulldown menu.
3. Click OK to close the iTunes preferences window.
4. Right-click or Control-click on your song file and select Convert Selection to AAC (or MP3).

## Keyboard Shortcuts

- R - Start/Stop recording
- Z - Move playhead to beginning of the timeline
- Space Bar - Play/pause playback
- Command + Option + N - Create a new track
- Command + Shift + N - Create a new basic track.
- Command + Delete - Delete a track
- Command + K - Show on-screen keyboard
- Command + T - Split a region
- Command + P (in Notation view) - Print notation